



Ø BEAT



COLO. SPRINGS,
COLORADO

MARCH 1980

WHAT'S WRONG WITH THE STEREO?

RFI PROOFING A STEREO (audio rectification)

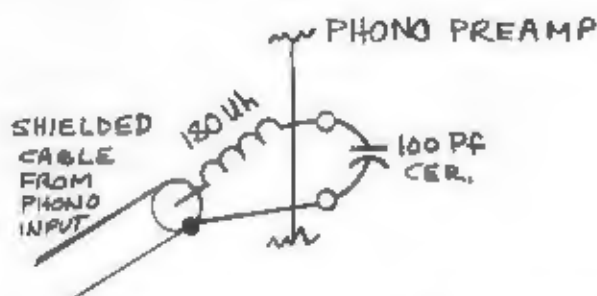
RFI, meaning "Radio Frequency Interference," is a problem we as amateurs must learn to cope with.

Today, with more and more electronic gadgets showing up in the average home, RFI has become a serious problem requiring attention and understanding by amateurs. The problems are not insurmountable and, in fact the cures are usually quite easy when the troubled area is localized.

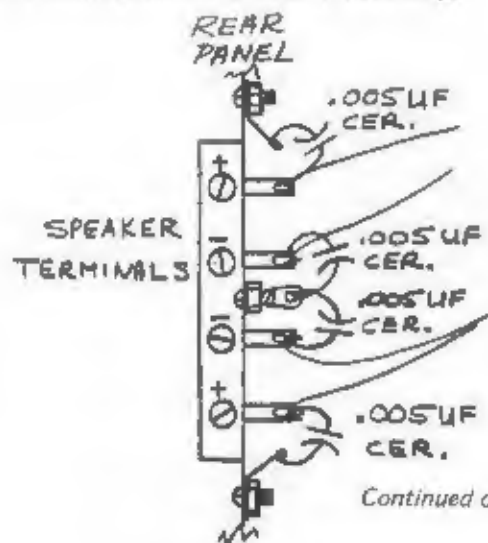
A technique I use to help in locating a RF sensitive input is to connect the transmitter into a dummy load located next to the stereo. I use a coax "T" connector on the dummy load with an antenna stuck out one end of the "T" and positioned over the stereo. Transmit into the dummy load on low power i.e. 1-10 watts and observe which switch and control positions the stereo is sensitive to.



Sometimes shielding will be necessary but usually only simple filters will be required on the preamplifier inputs and speaker output terminals. The values shown are not critical. Use the shortest leads possible and pay attention to good solder connections and tight mechanical grounds (scrape the paint off under solder lugs). Disc ceramic capacitors work well into the VHF range but other RF type capacitors could be substituted.



- Here are some additional hints on RFI locating and cures.
1. Using headphones can sometimes help isolate the problem to speaker leads.
 2. Grounding equipment seldom if ever helps because a good ground at RF should be only inches and most grounds are many feet. Even if the length of the ground lead were only an inch or so it wouldn't help unless it eliminated the received signal current from the sensitive device (usually the emitter-base junction of a small signal transistor).



Continued on page 3...

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(* Two-year board terms began November 1979)

ZERO BEAT is published monthly in the interest of the members of the Pikes Peak Radio Amateur Association, Inc., Colorado Springs, CO. Permission is given to reprint articles or excerpts provided credit is given. Deadline for submission of articles to be published is the third week of the month. Classifieds accepted anytime.

The Pikes Peak Radio Amateur Association meets on the second Wednesday of every month at Sabin Jr. High School, 3605 N. Carefree Circle at 7:30 p.m. and all amateurs and interested persons are cordially invited. The Association also conducts an informal net on all Wednesday evenings, except meeting night, on 146.52 MHz FM at 7:00 p.m.

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FEBRUARY MINUTES

The PPRAA meeting was called to order by Don Lohse KBØKQ at 7:30 p.m. at Sabin Jr. High School on February 13, 1980.

No treasurer's report tonight as Dave WBØSDW was ill.

Tom Shaklee WØEBI from Ft. Carson announced the 4th Infantry will have a joint exercise in California with other branches of the service. Amateurs in Ft. Irwin would like the assistance of Amateurs in the Colo. Springs area to relay messages. The standard AARL message form will be used. These exercises will begin Feb. 27 and run thru the month of March. WØEBI will be on every evening 1800 local at 14.300 ±10.

Charleen WBØYOB
(Tx Charleen!)

52 Net — Every Wed. Nite 146.52, 7 p.m., local time.
Louis WØPCZ — new teletype repeater 147.345/945; 6
Meter Net — 7 p.m. every Wed. nite 50.55
Bulletin from W1AW available for everyone to read during
meeting
Bud WBØTIB — suggests carrying on license (or photo
copy) with you.

Meeting adjourned and followed by an excellent program
by Ray AAØL on Narrow Band operation and equipment for
transmitter hunting.

Respectfully Submitted,
Lorna WDØBTF

Tom NØBZ. The Pikes Peak FM Association will handle the food concession for the Swap Fest.

American Teledata—Denver has several teletypes for sale at \$650.00 with 6 mos. of service.

Al ADØZ. New Novice Class will start on Feb. 19th, 7 p.m., Tues. and Thurs. at North Jr. High School.

Warren Rubin WBØSJR has put public service announcements on KRCC.

Ray AAØL — Fox Hunt. Sat. March 8, registration 2:30 p.m. — in front of Sunshine Radio, T-Gap and Academy.

"Ham" Breakfast — Every Saturday morning at Kings Food Host.

Dave NØDV — Novice loaner program doing well. Contact Dave NØDV or Dave WBØSDW for a rig for a novice to borrow for short term use.

Dave NØDV — Field Day — plans progressing. Field Day will again this year be on the Rampart Range Rd.

Bud WBØTIB — Amateur Radio Demonstration — Mall of the Bluffs, May 3 & 4 — Bud would like to have us put on an excellent demonstration of all possible modes of Amateur Radio.

Bud WBØTIB — Servcom— Bill KA4DKA has been appointed communications officer for Civil Defense/Races.

Ken KAØDST and Dave WØMBZ have been collecting lots of goodies for the Swap Fest.

Refreshments — March — Ralph KAØGJO.

Board Meeting — March 3, 7:30 p.m. at Don's KBØKQ.

Letter from Gordie WBØTIC from his new home in Hawaii — available for everyone to read during break.

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de the president

The first two months of 1980 have been very productive for the PPRAA, with plans being made for many activities that will occur later in the year. An exhibit at the Mall of the Bluffs on May 3 and 4, Swap Fest, the Transmitter Hunt that was held on March 8, Field Day in June, and, if things continue as cloudy as they have on the international sports picture, we may get the call in April to put together the communications for an American National Sports Festival, to give our athletes who may not go to Moscow a place to show their skills. In addition, we are hot on the trail of a location for a club station that would be a great benefit to the club. The Walk for Mankind in May, plus other activities are still in the planning stage.

Sound like a lot of things to do? You bet, but not one of these various public service projects or club activities did — or could — get off the ground without a lot of work from one of more people. I would like to thank all those who have given of their time in the interest of making our club one of the most active, vital organizations in the area. Of that we can be proud. It is through their efforts that all the plans and expectations of the members come to pass.

At the same time, I would like to further encourage you to become more involved. Clubs are often accused of being stale and lifeless, but considering the wide range of interests and skills of our members, I don't think we need worry about that.

One of the most visible facets of our club is this newsletter. On a monthly basis it is distributed throughout the community and state, and it is our public image. It is also a showcase for the creativeness and involvement of amateurs in general and ourselves in particular. I had coffee with Denny WBØYKH the other day, and he told me about being right behind a VW that went into a pole coming off I-25, getting out to help, putting in a call to Lorna WDØBTF, who called the police and ambulance, and then staying until help arrived. A perfect example of a ham in action — a job well done. "Denny", I say, "write it up for Zero Beat, that is just exactly the kind of thing that should be in there!" "No", he says, "it wasn't any big deal". Wrong — it is a big deal. Our organization is made up of people, and it's the things that we do that make it interesting. We all spend time on the air, or over coffee, or before and after the meeting, talking with each other about what's new, or did you hear about — and so on. We might all be suprised about how many other people would be very interested in the very same subject. With all the different things we all do, we should make it a point to let everyone else know what's happening, so they can become involved too. You just might find that somebody who reads or hears about a problem or concern in here has the perfect solution.

HOW MUCH DOES 10 LBS WEIGH?

A scale is attached to the ceiling. A rope is tied to a 10 pound box and passed over a pulley on the scale. You pull the box off the floor with the rope and tie it to an eyebolt in the floor. What does the scale read?

See on last page!



So the next time you put together a good project, do some public service, work some rare DX, hear a funny story — whatever, please write it down on paper, and give to somebody who works on Zero Beat. They will thank you for it, and I think many other people will too. But don't put it off. We need the information before the night comes around to put Zero Beat together. If you've enjoyed the look of Zero Beat lately, and want it to continue, make it a point to get your information together and in by meeting time. That gives us time to do the kind of work that has generated a lot of compliments and interest from many people. I would also like to invite the readers of Zero Beat who are not members, but just pick theirs up someplace in town, to contribute. If you have something that you think would be of interest please write it up and get it to us, we would be glad to publish it. In this issue, you'll find a new column by Dave Acree WØMBZ, a director of the Pikes Peak FM Assn. We hope to make this a monthly feature, and would like to thank them for the contribution. We want Zero Beat to be something to look forward to in the mail, or maybe even get you to come down to the Saturday breakfast to pick yours up early.

I know all of this has been said before by many other people, but this year we've really gotten it going, and it would be great to continue. Like I've said before, this club is not run by a few people, it's run by those members who care enough to open their mouths to volunteer for this, coordinate that, and to contribute their thoughts, ideas and opinions. The Pikes Peak Radio Amateur Association has a long honorable history, and a tradition of excellence, let's do our best to further the image.

73's

Don KBØKQ

RFI Proofing . . . (cont.)

3. Shielding speaker leads may help keep RF current from getting to the output amplifier driver transistors but in many cases this is difficult so the speaker terminal bypassing method shown in the drawing may be more convenient.
4. Test using the frequency and modulation in use when the problem occurred.
5. Keep in mind that RFI can occur in more than one location in the same receiver and frequently does.
6. Several pamphlets are available to help explain the problem and show additional ways to rid electronics equipment of the interference. (ARRL and FCC both have literature available.)

What is hard for me to understand is why people don't like to listen to hams take thirty minutes to say thirty seconds worth of information but instead prefer listening to stereo music. Oh well, it's their loss Hi Hi.

Happy Hamming,
Ray, AAØL



FM Association Notes

The need for occasional articles or a regular column in Zero Beat, addressing the activities of the Pikes Peak FM Association (PPFMA) has been apparent to me for some time. Upon finding that I would not be leaving the area, and would be available to at least get something going, I discussed this with some of the editorial staff and PPFMA board members. The idea was accepted almost instantly, so here we go!

I envision a column each month containing inputs from Amateurs in general, general membership of the PPFMA, questions, answers, emergency and public service activities and technical subjects related to the PPFMA repeaters. You may consider this an invitation to get something in and make it an interesting column. If you have an input, contact any PPFMA board member on the air, by phone or "eyeball" and pass it on.

The 16/76 machine as everyone knows, has not been the worlds greatest repeater lately. At the present time it is being updated by Keith, KØYXC, and Larry, WB9JGC, with a new receiver and modifications to reduce the effect of the high RF field on Cheyenne Mountain. This action should again make it our favorite local rag-chew repeater and take some of the load off the 37/97 machine.

Over the New Year's holidays a "radome" protective cover was installed over the 37/97 antenna. This dramatically reduced the unpleasant noise on the machine caused by wind friction and corona discharge. However, some occasional noise is still being experienced and seems to be caused by ice loading which changes the antenna characteristics enough to effect system sensitivity.

On January 18, 1980 an employee of Mountain Microwave, Paul Edwards — AGØY, while returning from the Almagre Mountain relay site because of dangerous cold requested assistance. El Paso County Search and Rescue responded, recovering a grateful Paul who was suffering from frostbite on both feet. Amateurs Don, KB5KD; Tom, WAØQQT; Tom, NØBZ; Keith, KØYXC, and Barry, NØKV, were members of the team that provided essential communications using the 37/97 repeater. Rick Ganstine KAØEVA who recently earned his novice ticket was also a member of the team.

On January 21, 1980 SERVCOM was activated on 37/97 to provide communications during an aircraft emergency involving an airliner loaded with passengers. Fortunately the aircraft landed at Peterson Field, the passengers were off-loaded safely and the SERVCOM standby was cancelled.

On February 1, 1980 Oak, KØROL discovered that his and a neighbor's cabin on Saddle Mountain had been broken into and burglarized. His request for assistance on 37/97 was answered by Bob, WBØFLU who notified the Teller County Sheriff.

On February 8, 1980, Barry, NØKV responded to a request for assistance by two occupants of a pick-up truck stalled in the snow on Gold Camp Road. While enroute Barry was informed on 37/97 that the people requesting assistance had gotten out successfully. However, Barry got stuck — but that's another story.

The next meeting of the PPFMA is on March 2. Check in to the PPFMA/SERVCOM Net each Sunday evening at 1930 local time for reminders and further information.

73
WØMBZ



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BOARD MINUTES

The board was called to order by Dave WBØSDW at the home of Jim and Charleen Colvin at 7:30 P.M. on February 4, 1980.

Those present were board members: Lorna WDØBTF, Don KBØKQ, Dave WBØSDW, Ray AAØL, and Charleen WBØYOB; and visitors Dick WBØPNX, Oak KØROL, and Jim NØAVY.

The programs for the next five months were discussed. The February meeting will be a presentation by Ray AAØL on narrow band voice modulation and some more information on transmitter hunting. Several excellent programs have been arranged for the future. Some interesting ideas such as an outdoor picnic meeting and an old timers meeting were discussed as possible future plans.

The need for a club historian was expressed and getting an updated scrapbook for the club. Oak Stockton KØROL volunteered to help screen some materials from the club archives and get the project started. A get-together at Don Lohse's house some Saturday after breakfast to go through materials was suggested.

Money for printing ØBeat was brought up for discussion. After a lengthy discussion several suggestions were made. Several members of the board and Ø Beat staff will be working on a plan to help finance ØBeat which has grown in size and circulation.

Registration for the transmitter hunt on March 8 will begin at 2:30 p.m. in front of Radio Shack in Garden Ranch Shopping Center on Templeton Gap. The hunt will begin promptly at 3:00 p.m. Prizes and pizza and beer to follow the fox hunt.

The April 27 Swap Fest is progressing as far as prizes are concerned. Ken Holloway KAØDST has at least 3 car loads from electronics firms packaged and ready.

Dave WBØSDW read an article from 73 Magazine on suggestions for meetings and club activities. Our participation in the National Sports Festival was one of the club activities mentioned.

New novice classes will start February 19, 1980 at North Junior High School at 7:00 p.m. Tuesday nights will be code class and Thursday nights will be theory class.

Oak Stockton KØROL volunteered to assist a committee to review and revise the by-laws and incorporation of the club.

Bud WBØTIB has May 3 and 4 reserved at the Mall of the Bluffs from 8:00 A.M. to 10:00 P.M. for a display of amateur radio equipment and information. Bud will need help so give him your assistance.

Field Day will be held the 3rd Saturday in June.

Mike KØTER has already started working on the Walk for Mankind in May. Bring your rain gear and help work on a worthy project.

Tom Shaklee WØEBI needs operators to handle messages for men from Ft. Carson going on maneuvers in California Feb. 27 through March 18. He needs operators who can set up schedules for phone patches also.

There being no further business the meeting was adjourned. The next board meeting will be March 3, 1980 at Don's KBØKQ, 1410 E. LaSalle at 7:30 P.M.

Respectfully submitted,
Charleen WBØYOB

If it's CW, it's communications.

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From the ARRL . . .

A decision has been made in the court case brought by the league against the FCC concerning the banning of 10 meter amplifiers. The Court of Appeals said that it might not have made the same decision on the subject, but would not rule against the FCC. So, it looks like the decision stands.

AMSAT says that Oscar 9 will now be launched on May 20.

FCC recently executed a search and seizure operation at a clandestine radio station using amateur equipment that was beaming political messages from Florida to Cuba in the 40 meter band. The station had been causing much interference, and its shutdown is a welcome event.

**GOT AN IDEA
FOR A GOOD PROGRAM?
LET'S HEAR IT!!**

**GOT A SPARE
RIG FOR A NOVICE?
CALL NØDV AT 473-0293**

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40 foot Rohn 25 Tower with guys — \$175.00, Swan 3 element Tri Band Beam — \$150.00, Heath 301-401 — \$500.00, Heath HW 16 and Heath HG 10B — \$150.00. Call: Bob, AFØM, 634-7042 Evenings.

Ten Tac Argonaut QRP rig, SSB, full break in CW. Also out-board CW filter. Excellent shape. \$250 for both. Henry Hill, WA3CVC, 635-8730 anytime.

Typesetting courtesy Letter Setters

MEETING NOTICE

The March meeting of the Pikes Peak Radio Amateur Association will be held on Wednesday, March 12, 1980 at Sabin Jr. High at 7:30 p.m. The program will be on Radio Control. Members and other interested persons are invited to attend.

QUIZ ANSWER

20 pounds. It takes 10 pounds of force to keep the 10 pound box off the floor. If you don't see it, redraw the figure substituting a ten pound box on the end of the rope instead of the eyebolt. It amounts to the same thing — 20 pounds.



Ø BEAT



COLO. SPRINGS,
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Jim Colvin NØAVY
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